

# GUIDELINE

Welcome to the BRANZ monthly technical update



## Should only people with qualifications become LBPs?

Changes to LBP Scheme up for discussion



The Ministry of Business, Innovation and Employment (MBIE) has issued a discussion document around the Licensed Building Practitioners (LBP) Scheme. This follows earlier consultations in 2019 and 2020. The focus is on supervision, licence classes and competency requirements.

There are over 25,000 licensed individuals, with around two-thirds holding qualifications. There are no mandatory qualifications required to become an LBP, and entry requirements have not been raised since the scheme began 14 years ago.

The new discussion document has no specific proposals other than introducing a code of ethics to set minimum standards of behaviour. It poses a large number of questions - for example, whether minimum standards of competence should be lifted and whether formal qualifications should be required for someone to become an LBP.

Submissions close 31 May. You can find more details [here](#). ▀

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## Water and waterproof decks

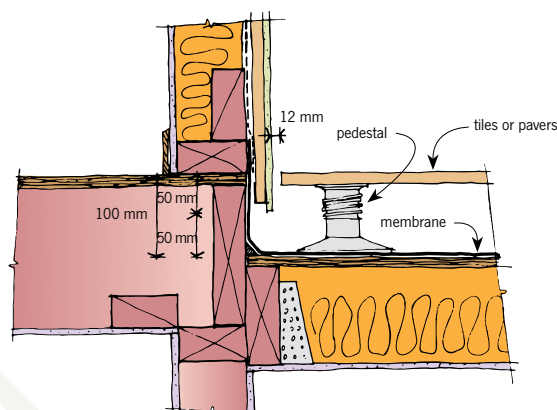
Drainage at the cladding base is important for durability

The explosive growth of medium-density housing is making waterproof decks more popular than ever, providing unit owners with a private outdoor living space. Getting the area right between the wall cladding, walk-on surface and membrane is crucial for their durability.

Getting it wrong can have serious consequences. Problems in many leaky buildings have originated at this point. In some cases, an insufficient gap for drainage trapped water between the cladding and the walk-on surface. In other cases, wall cladding that finished too close to the deck surface wicked up moisture into the framing.

While Acceptable Solution E2/AS1 is not mandatory, it gives some useful dimensions:

- A 12 mm drainage gap between the cladding and the walk-on surface (E2/AS1, 7.3.1.1)



**The detail between the cladding, the walk-on surface and the membrane is crucial to the durability of a waterproof deck.**

- A 35 mm minimum clearance from the bottom of the cladding to the deck surface (E2/AS1, 4.6.1.4).
- Minimum 150 mm turn-up of waterproof

membrane around the deck perimeter (E2/AS1 8.5.6), with 115 mm minimum cladding cover to protect the framing (E2/AS1 8.5.6 comment). ▀

# Updated wood burner guide published

## Solid fuel holds its own

In April, the Ministry for the Environment [published the guide to authorised wood burners](#), an updated presentation of the list of wood and pellet burners that meet the mandatory National Environmental Standards (NES) for Air Quality.

As well as showing what models comply with the requirements, the guide also shows the emissions and efficiency for each one, allowing comparison. Emissions of the models range from 0.1g/kg wood burnt to 1.5g/kg. Efficiency (conversion of fuel energy to heat) ranges from 94% to 65%. 1.5g/kg and 65% are the limits allowed in the standards.



In 2020, the government sought feedback on proposals that included reducing the emission standard for new solid fuel burners to 1.0g/kg. [A summary of submissions](#) was published in December 2020 but no final

decision has yet been announced.

As industry moves to building net-zero-carbon houses, wood and pellet burners are a valid option providing they:

- use seasoned wood from sustainably managed (replanted) local forests or seasoned untreated waste wood
- are properly installed and maintained.

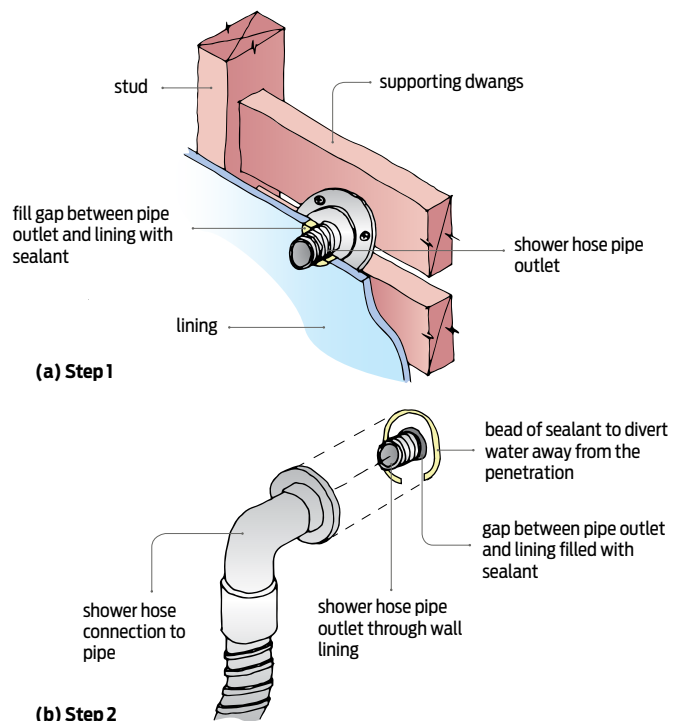
Some regions apply additional rules - for example allowing only ultra-low-emission wood burners. There are separate lists of approved appliances at [Nelson City Council](#) and [Environment Canterbury](#). ▀

## Installing shower fixtures

### The two-step waterproof penetration

Plumbing fixtures such as a showerhead, shower hose and mixer should penetrate the impervious wall lining without compromising waterproofing, but leaks behind wet area walls are not uncommon. Here is a good two-step process:

- Step 1: Cut a hole through the shower lining substrate for the pipe outlet, leaving a 6 mm gap between the pipe and the substrate or lining. Fill the gap completely with silicone sealant.
- Step 2: Apply a bead of sealant around the top and sides to fit under the rim of the cover plate. Leave an opening at the bottom so any water that gets behind the cover plate can drain away. Fit the fixture's flange or cover plate over the sealant. ▀



The two steps to sealing wet area lining penetrations.

## Feedback sought on building regulations, standards protocols, engineer regulation

### MBIE is seeking input on multiple matters

MBIE is asking for comments about building regulations covering:

- new mandatory information requirements for building products
- a new voluntary scheme for manufacturers of modular and prefab components that makes consenting more efficient
- improvements to the CodeMark scheme.

Submissions close on 11 June 2021. Find more information [here](#).

MBIE is also consulting on the way standards are used and supported in the Building Code system. Submissions close on 28 May. You can find the consultation document [here](#).

MBIE is planning changes around registration of engineers, including:

- a new registration scheme to ensure a base level of professionalism
- a new licensing regime
- a new regulator to oversee registration/licensing and investigate complaints.

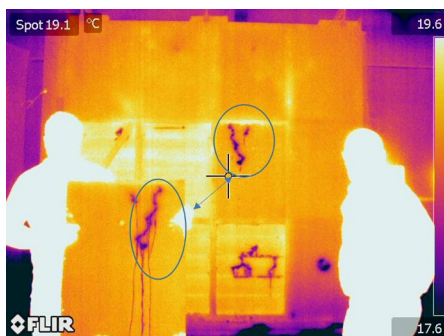
Submissions are due by 25 June 2021. Find more information [here](#). ▀

# Bringing confidence to linings-on wall insulation retrofits

Research finds a path to reduce moisture transfer risk

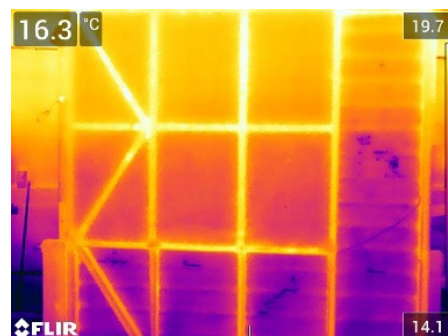
BRANZ has calculated that around half of all New Zealand houses have no wall insulation. If a house has roof and floor insulation, then a significant amount of heat loss is through the walls. As energy efficiency and carbon footprint improvements are sought in existing houses, retrofitting wall insulation clearly gives scope for useful gains. A potential solution is loose-fill insulation blown in through holes, with Building Code compliance via a path such as CodeMark.

But there is a problem. With linings in place, there is the risk that, in older walls such as direct-fix weatherboards with no effective underlay, new insulation could carry water from behind the cladding to the framing or internal wall linings. This type of retrofitting is out of scope for NZS 4246:2016 *Energy efficiency - Installing bulk thermal insulation in residential buildings*.



Water is transferred via insulation.

BRANZ research confirmed that water transfer can indeed take place but also found pathways for a linings-on retrofit that does not carry this risk. BRANZ has developed an evaluation method, based on E2/VMI, that brings confidence to these retrofits.

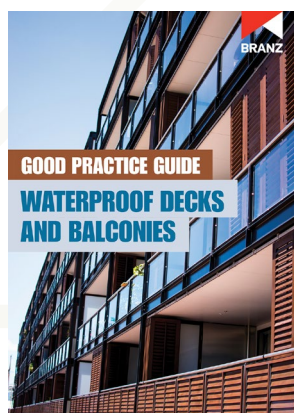


No water transfer occurs.

There are more details and a decision tree for retrofitting wall insulation based on current recommendations in BRANZ Study Report SR436 [Linings-on retrofit insulation in weatherboard walls: Ensuring effective water management](#). ▀

## New publications

Weathertightness and warmth



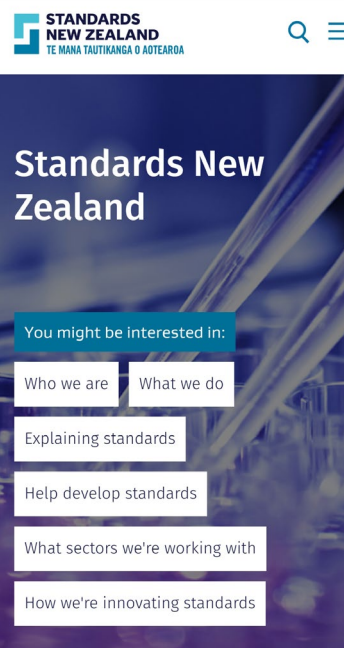
BRANZ has recently published two books:

- [Good Practice Guide Waterproof decks and balconies](#). This new guide focuses on the design, specification and construction requirements for waterproof decks and balconies, taking into account the Building Code, structure, substrate, membrane and walk-on surfaces. It covers all types of residential buildings - stand-alone houses, townhouses, apartments and so on - to ensure decks will be serviceable over the life of the building.
- A second edition of [Building Basics Weathertightness](#). This book, updated for 2021, provides background to the issues and contributing factors and guidance on the principles of weathertight construction - how water behaves and how we deal with it.
- BRANZ has also been part of a partnership identifying the warmest style of house curtains. The details are explained in a short free booklet, [Understanding the magic of curtains](#). ▀

## Easy access to free standards

A quick check on what's included

In December 2017, MBIE made five building standards and a handbook available for free. The list has been expanded, and there are now 124 building-related standards that you can access at no charge. You can find a PDF with the complete list [here](#) and a page for easy downloading [here](#). ▀





## NZS 3646 included in Standards NZ digital pilot

Standards NZ has launched a 6-month trial of a new [digital reader](#) that can be accessed on web-enabled devices including smartphones, tablets and desktop computers. Standards accessible include NZS 3604:2011 *Timber-framed buildings*, NZS 4246:2016 *Energy efficiency - Installing bulk thermal insulation in residential buildings* and NZS 4541:2020 *Automatic fire sprinkler systems*.



## Shortages of skilled labour

In its [Quarterly Survey of Business Opinion](#) released on 13 April, economics consultancy NZIER says construction companies are reporting shortages of skilled labour at a level not seen since 2017. It also noted supply chain disruptions but said there was still a solid pipeline of construction.

## Infometrics sees rising building costs a key part of inflation

Economics consultancy [Infometrics](#) says that rising construction costs are one reason behind rising inflation. It says new building costs increased 3.5% in the March quarter and the price of some inputs has risen further, with spouting prices up 9.2% p.a. in March 2021. The company says that, as housing demand shifts to new dwellings, meeting demand will be difficult given the lack of spare capacity in the residential construction industry.

## Review of local government

The government has announced a wide-ranging [independent review of local government](#), including its roles and funding. The review team will report on their direction in September 2021 and produce a report for consultation in September 2022 and a final report in April 2023.



## House consents at all-time high

[A record 41,028 new homes were consented](#) in the year ended March 2021. Stats NZ says the previous record was 40,025 in the year ended February 1974. The annual number of new homes consented in Auckland - 17,495 - was also record breaking. Auckland is home to 34% of the population but accounted for nearly 43% of consents. The value of consents solely for new stand-alone houses topped \$1 billion for the first time in a single month.

## Finance Minister reconfirms look into building material costs

At an Auckland event, Finance Minister Grant Robertson was asked about building material costs. [He was reported as replying](#): "You do raise an issue which is in our work programme ... We've currently got the Commerce Commission having a good look at supermarkets and I suspect you will find the next cab off the rank might take us in the direction of that particular issue."

## MBIE amending electricity and gas regulations

MBIE is [planning amendments](#) to the Electricity (Safety) Regulations 2010 and the Gas (Safety and Measurement) Regulations 2010 to reference up-to-date standards and reflect the latest international certification and conformance regimes. Submissions are due by 1 June 2021.

## Higher probability of earthquake on Alpine Fault

A [new study](#) puts the probability of an earthquake on the central section of the Alpine Fault at 75% in the next 50 years. Previous studies put the figure at 29%.

## Updated standards

These updated standards have been published:

- [NZS 3104:2021 Specifications for concrete production](#)
- [NZS 4512:2021 Fire detection and alarm systems in buildings](#)
- [NZS 4514:2021 Interconnected smoke alarms for houses](#)
- [AS/NZS 1604.1:2021 Preservative-treated wood-based products - Part 1: Products and treatment](#)
- [AS/NZS 1604.2:2021 Preservative-treated wood-based products - Part 2: Verification requirements](#)
- [AS/NZS 1604.3:2021 Preservative-treated wood-based products - Part 3: Test methods](#)

## Loan restrictions introduced

Since 1 May, almost all new loans to property investors must be less than 60% of property value, and most new loans to owner-occupiers must be less than 80% of property value. In its [6-monthly financial stability report](#), the Reserve Bank says "construction activity has increased and is expected to remain high". It also said it was stress testing insurers for the first time, testing the resilience of the five largest general insurers.



## 5% of homes lack a basic amenity

[Census data shows](#) that 5.2% of private residential dwellings (78,900 homes) lack access to at least one of six basic amenities: drinkable tap-water, a kitchen sink, cooking facilities, electricity, a toilet, a bath or a shower. The analysis of the 2018 Census data was done by He Kainga Oranga, the Housing and Health Research Programme, University of Otago, Wellington.